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June 13, 1997

VIA HAND DELIVERY

Mr. William F. Caton
Secretary
Federal Communications Commission
1919 M Street, NW
Room 222
Washington, DC 20554

Dear Mr. Caton:

On behalf of Sarkes Tarzian, Inc., there are transmitted herewith an original and four copies of its *Petition for Partial Reconsideration* in connection with the adoption of the Commission's *Sixth Report and Order* in MM Docket No. 87-268.

If any additional information is desired in connection with this matter, please contact the undersigned counsel.

Sincerely,

Brian M. Madden

BMM/tlm
Enclosure
cc: Ellen Goodman, Esq.

BEFORE THE

Federal Communications Commission

WASHINGTON, D.C. 20554

In the Matter of

Advanced Television Systems and Their Impact Upon the Existing Television Broadcast Service	)))	MM Docket No. 87-268

To: The Commission

PETITION FOR PARTIAL RECONSIDERATION

Sarkes Tarzian, Inc. ("STI"), by its attorneys and pursuant to Section 1.429 of the Commission's rules, hereby submits this petition seeking the Commission's reconsideration of portions of the *Sixth Report and Order* in MM Docket No. 87-268, FCC 97-115.

STI is the licensee of television Stations WRCB-TV, Channel 3, Chattanooga, Tennessee and KTVN(TV), Channel 2, Reno, Nevada. STI has participated in this docketed proceeding both individually and as a signatory to comments submitted in conjunction with the Association for Maximum Service Television, Inc. ("MSTV") and other station licensees; STI is joining the *Petition for Clarification and Partial Reconsideration* being submitted contemporaneously on behalf of MSTV and other broadcasters and subscribes generally to the positions taken therein. Among other matters, this filing will address a specific problem which will confront those licensees, such as STI, which have received particular DTV allocations that will require antenna relocation prior to implementation, but such relocation is impeded by the

provisions of Sections 73.622 and 73.623 of the rules, as adopted in the *Sixth Report and Order*, due to certain interference conditions to be described in detail below.

Station WRCB-TV, now licensed to serve Chattanooga, Tennessee on NTSC Channel 3, has been assigned DTV Channel 55. As indicated in the attached Engineering Statement prepared by Bernard R. Segal, P.E. (the "*Engineering Statement*"), the DTV operation of Station WRCB-TV — operating with the replication facilities specified in the *Sixth Report and Order* — would cause interference to the first-adjacent NTSC operation of Station WZDX(TV), Channel 54, Huntsville, Alabama, and to the second-adjacent NTSC operation of Station WFLI(TV), Channel 53, Cleveland, Tennessee. The licensed transmitter site for Station WRCB-TV's NTSC Channel 3 operation, which is the DTV Channel 55 site utilized for purposes of the DTV Table of Allotments, is located only 40 kilometers from the licensed transmitter site of Station WFLI. *Engineering Statement* at 4. Were the DTV allotment for Station WRCB-TV to have been subject to the separation rules for new or modified DTV allotments, the use of Channel 55 at the licensed site for Station WRCB-TV would be impermissibly short-spaced to Station WFLI. *See* 47 C.F.R. § 73.623(d).

As reported in the *Engineering Statement*, STI has investigated the steps necessary to implement construction of the DTV facilities assigned to Station WRCB-TV. The station's existing tower on Signal Mountain is only 61 meters high, and the antenna for Station WRCB-TV is mounted at the top of the tower. *Engineering Statement* at 2. Location of the DTV antenna below the station's NTSC antenna would pose an RF hazard to homes which have been built around the tower site since the tower was first constructed. As Mr. Segal notes, these same homeowners would undoubtedly object to any request for an increase in tower height at

this location. Such a request may, in any event, be contrary to numerous restrictive zoning standards adopted over time as the area grew more developed, *Engineering Statement* at 2-3, unless and until subsequent action by the Commission were to preempt such regulations.

Mr. Segal reports further that a suitable alternate transmitter location for DTV operation on Channel 55 by Station WRCB-TV will likely have to be located beyond the three mile zone surrounding the specified DTV coordinates for the station; this three mile zone has been adopted by the Commission to allow some measure of flexibility in site relocation without considerations of interference, *see* 47 C.F.R. § 73.622(d)[1]. Unfortunately, the three mile zone concept does not afford any relief for Station WRCB-TV: all of the likely suitable sites for DTV operation by Station WRCB-TV are at locations between 3.5 and 6.0 miles northwest of the station's licensed NTSC site. *Engineering Statement* at 3.

Moreover, even though any of these locations would be farther from the licensed NTSC transmitter site of Station WFLI than is the current site for Station WRCB-TV, such a move would automatically cause increased interference to Station WFLI, as explained below, unless STI reduced the specified DTV facilities of Station WRCB-TV. *Engineering Statement* at 3-4. Because the reference coordinates for the DTV allocation for Station WRCB-TV are located within the NTSC Grade B service contour of Station WFLI, interference will be caused to Station WFLI in the immediate area surrounding the transmitter site of Station WRCB-TV. This type of interference is often referred to as "doughnut hole" interference. Under the provisions of Section

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[1] This limited zone of flexibility as to transmitter site relocation was adopted, at least in part, based upon comments previously submitted by STI to explain the difficulties it anticipates in connection with the implementation of DTV facilities for Station KTVN(TV) in Reno, Nevada. *Sixth Report and Order* at ¶ 102.

73.622(d), since the DTV operation of Station WRCB-TV cannot likely be constructed within the three mile zone surrounding the licensed Station WRCB-TV transmitter site, any proposal to relocate the DTV transmitter site beyond that zone will require that STI comply with the restrictions of Section 73.623(c) of the rules as adopted. This rule would force STI to reduce the height/power specifications for the DTV facilities for Station WRCB-TV in order to avoid "increasing" interference to Station WFLI — interference which has been created in the first instance as a consequence of the Commission's allocation to Station WRCB-TV of what would in other circumstances be a short-spaced DTV allotment.

Mr. Segal notes in the *Engineering Statement* that the DTV allocation for Station WRCB-TV has a replication area match of only 91.1 percent, which is the worst degree of matching among any of the stations in the Chattanooga market; each of the other stations has an area match of at least 98.7 percent. *Engineering Statement* at 4; *Sixth Report and Order*, *Table 1* at B-15, B-16, B-37, and B-38; *see also n.2, infra.* Were STI required to reduce the designated DTV height/power facilities for Station WRCB-TV, the already poor degree to which the allotment made for Station WRCB-TV conforms to maximum "facility replication," which is a guiding principle of the DTV allocations scheme, would be made still worse for STI's station. STI accordingly submits that the Commission should consider and adopt more flexible standards in the processing and approval of modifications to the initial DTV allocations.

STI suggests that Section 73.623(c)(2) of the rules be modified so that no reduction in the height/power replication facilities specified for a station in connection with an initial DTV allotment will be required in cases involving "doughnut hole" interference of the nature described above, even where a station licensee proposes to modify the transmitter site for

DTV operation at a site beyond the three mile zone surrounding the initial reference site, so long as the new transmitter location selected for the "undesired" station (in this case Station WRCB-TV) remains within the interference-free contour of the "desired" station (in this case Station WFLI) both before and after the site relocation. *See Engineering Statement* at 4. As an alternative, STI proposes that Section 73.623(c)(2) be modified so that some nominal increase in "doughnut hole" interference — for example, an increase in the area of interference of no more than 25 percent — be permitted where a modification of a DTV allotment is proposed (including the filing of an application to relocate the DTV transmitter site whether within or beyond the three mile zone permitted under Section 73.622(d) of the rules). The rule changes proposed by STI will afford much needed flexibility in preserving to the greatest extent practicable the replication of NTSC coverage during the transition to DTV.

There is another aspect that would make such rule changes appropriate in these particular circumstances. The incidence of "doughnut hole" interference only arises in situations such as that between Stations WFLI and WRCB-TV because the reference coordinates for the initial DTV allotment made for one station was, for any one of a number of complex causes, at a site located within the licensed NTSC Grade B service contour of another station. Surely the Commission would have preferred that there be no instances of this type of interference caused in the creation of the DTV allotment table, but there were many factors to be considered and some less than fully desirable allocations were inevitable. However, if a licensee is unfortunate, as is STI, to find itself in such a situation, and that licensee wishes to improve its DTV operations during the transition period by, for example, seeking an increase in the specified height/power facilities, any such change would in *all* cases cause an increase in the "doughnut hole"

interference. As a consequence, simply as a result of the particular DTV channel assigned, *no* improvement would be permitted during the DTV transition in the absence of an agreement among all affected stations.[2] It seems to STI that it is unfair to place such an unlucky licensee at an automatic, and absolute, disadvantage, given that the origin of the "doughnut hole" interference stems directly from the initial allocation scheme itself. The rules should be modified to permit reasonable facility improvements in such cases. *See Engineering Statement* at 4-5.

The particular DTV allotment for Station WRCB-TV imposes other disadvantages and hardships, as well. As noted previously, the station's area match is the poorest among its competitors in Chattanooga, and STI will not be able to co-locate its NTSC and DTV operations. More fundamentally, STI faces the dilemma that potentially neither its NTSC Channel 3 nor its DTV Channel 55 allotment will be within the "core" channels ultimately selected by the Commission. This poses yet further costs and uncertainty as to the station's long term operations: STI could well be forced to "transition" to *three* different DTV channels, with a real possibility that *each* would have to be at a *different* location, and without any assurance that the percentage of "replicated" area under DTV operation would correspond any more closely to the licensed NTSC service area of Station WRCB-TV or to the degree of equivalence in replication that has been afforded the other Chattanooga stations. STI believes that it is unfair for a licensee,

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[2] Section 73.623(f) of the rules, as adopted, permits negotiated interference agreements between DTV and NTSC operations. However, as Chattanooga is within the NTSC Grade B service contour of Station WFLI, and that station competes for at least some of the same viewers as Station WRCB-TV, conventional competitive considerations would suggest that the likelihood of a successful negotiation of such an agreement would be slight. It should be noted that the degree of area match for the DTV Channel 42 allotment made to Station WFLI is 100 percent. *Sixth Report and Order, Table 1* at B-38.

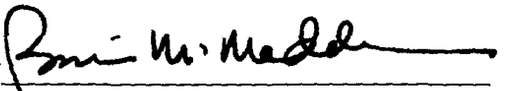
now operating on an NTSC channel that is potentially outside of the channels to be designated as "core," to be assigned a DTV channel allotment that is also clearly outside of the "core."

STI believes that the foregoing matters should be considered by the Commission in its review of the *Sixth Report and Order*. In particular, STI submits that the allowance of the recommended additional flexibility for licensees affected by the circumstances described herein, and in similar cases, during the DTV transition period will advance the public interest and facilitate the implementation of DTV operations.

For the foregoing reasons, STI urges that the Commission reconsider and modify the rules adopted in the *Sixth Report and Order* in this proceeding.

Respectfully submitted,

SARKES TARZIAN, INC.

By 

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Its Attorneys

June 13, 1997

ORIGINAL

Bernard R. Segal, P.E.
Consulting Engineer
Washington, DC

ENGINEERING STATEMENT
SARKES TARZIAN, INC.
CHATTANOOGA, TENNESSEE

This engineering statement has been prepared on behalf of Sarkes Tarzian, Inc. (hereafter, STI), licensee of television station WRCB-TV, Chattanooga, Tennessee, and supports a Petition for Reconsideration of the FCC's *Sixth Report and Order* in MM Docket Number 87-268 relating to the matter of Advanced Television Systems and Their Impact Upon The Existing Television Broadcast Service. Specifically, STI seeks a change in Section 73.623(c)(2) which proscribes an increase in the amount of interference caused to any other DTV broadcast station, DTV allotment, or analog television broadcast station for a proposal which seeks to modify the DTV facilities for an initial allotment.

Station WRCB-TV operates on NTSC channel 3 with peak visual effective radiated power of 100 kW and antenna radiation center height above average terrain of 320 meters. The paired DTV allotment for WRCB-TV in the FCC's *Sixth Report and Order* in the referenced preceding is for the use of channel 55 with effective radiated power of 1,000 kW and antenna radiation center height above average terrain of 320 meters.

A review of the channel 55 DTV allotment for WRCB-TV reveals that for the permitted power and height, interference is predicted to NTSC stations WZDX, Huntsville, Alabama, channel 54, at a bearing of 242° True and WFLI, Cleveland, Tennessee, channel 53, at a bearing of 129° True. The interference to WZDX involves 33 square kilometers and the interference to WFLI involves 296 square kilometers.[1] The desired-to-undesired (D/U) interference ratio for the N+1 taboo involving WZDX is -12 dB and for the N+2 taboo involving WFLI, the D/U interference ratio is -28 dB. The WRCB-TV site is within the WFLI Grade B contour.

WRCB-TV's management has already ascertained that a new site for the DTV operation of the station likely will be required. The existing tower is only 200 feet (61 meters) high and the channel 3 antenna is mounted on top of the tower. Any attempt to locate the DTV antenna below the existing antenna on the tower will create a radiation over-exposure problem with respect to nearby

[1]These results were determined from calculations performed by Telecommunications Analysis Services (TAS), a branch of the Institute for Telecommunications Sciences (ITS) which, in turn, is part of the U.S. Department of Commerce.

residences, and any increased tower height would be met by strong local opposition. Not unlike the situation affecting many other stations, the area in the vicinity of the transmitter which at the time of the initial construction of WRCB-TV was sparsely populated, has become enveloped by residences. Restrictive zoning ordinances have followed the trail of the new housing construction.

WRCB-TV is located atop Signal Mountain which is north of Chattanooga. A prospective new location with a high elevation that is not likely to have zoning and aeronautical hazard problems will be beyond the 3 mile (5 kilometer) radius determined by the FCC as not requiring specific consideration of engineering allocation matters provided the proposed operation fits within the envelope of the specified operating parameters for the paired allotment channel. The best prospect for a new site for WRCB-TV appears to be approximately 3.5-6 miles (5.6-9.7 kilometers) northwest of the existing site.

In the instance of the interference to WFLI, which is located only 40 kilometers from the WRCB-TV site, any move that increases the distance

with respect to WFLI, automatically increases the interference to that station for the same replication facilities as authorized for use at the existing WRCB-TV site or within any location within the prescribed three mile radius.

As it stands, the DTV/NTSC area match for WRCB-TV is 91.1 percent. A reduction in facilities to avoid increasing interference to WFLI will further reduce the DTV/NTSC area match percentage situation for WRCB-TV. For this reason, STI seeks a modification of Section 73.623(c)(2) that will not require a reduction in the replication power/height facilities from the initial allotment for situations involving the so-called "doughnut hole" interference when site changes exceeding the current three mile limit are proposed. STI suggests that the relaxation of the rule apply so long as the site proposed for the undesired station remains within the interference-free contour of the desired station both before and after the site relocation. Alternatively, a modification of the Rule that would permit some nominal percentage increase in the doughnut-hole interference is requested as, for example, a 25 percent increase in the area of interference. This latter approach would permit reasonable facility

improvements at an existing site where the DTV initial allotment has a doughnut-hole interference condition.

Since many DTV allotments were made in a manner which unavoidably resulted in doughnut hole interference conditions, the suggested rule revision would provide relief for many other stations similarly situated as for WRCB-TV.

Bernard R. Segal, P.E.

June 12, 1997